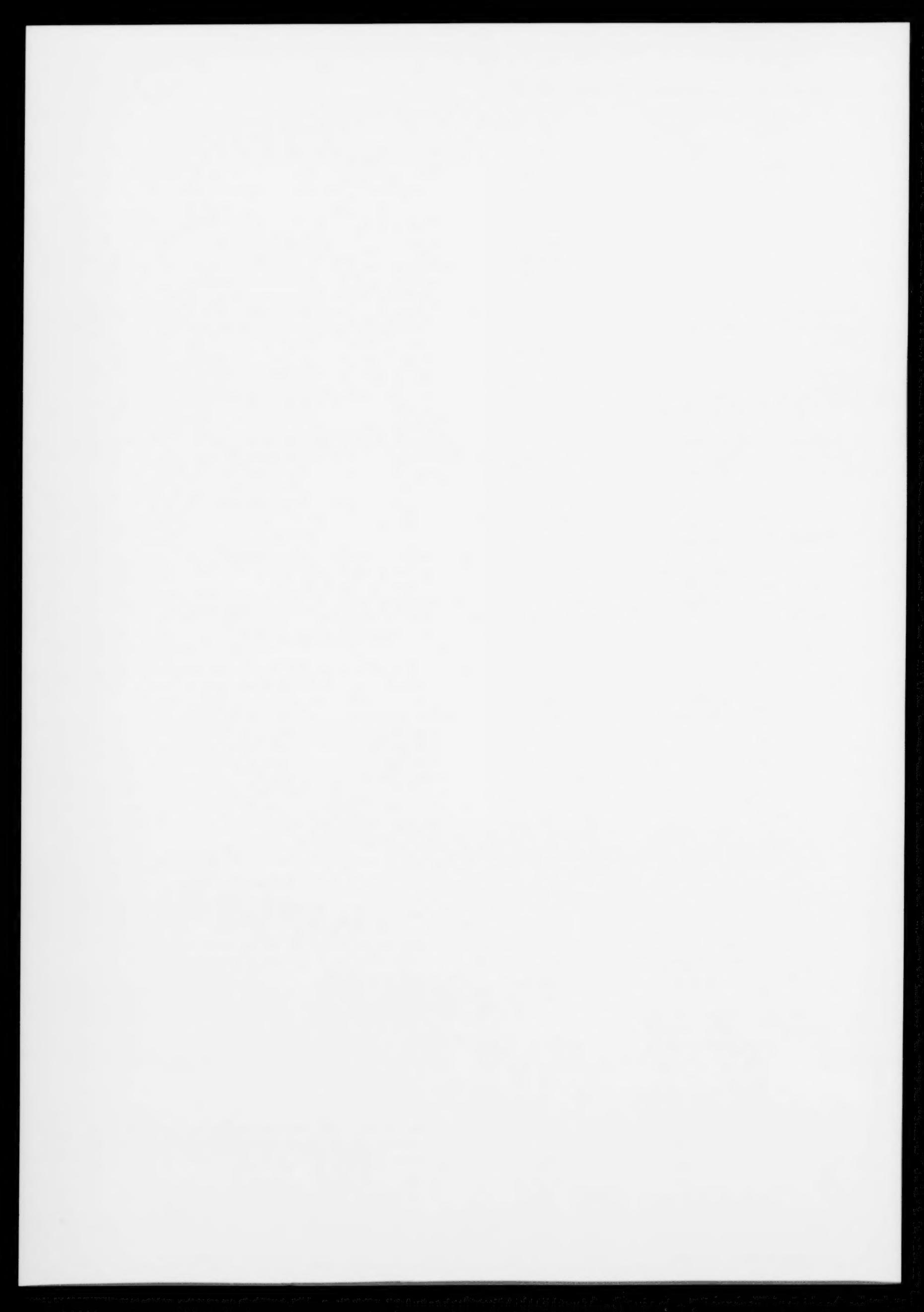


## Author Index

---

- Ahmed, A. M., 17  
Baldyga, J., 83, 93  
Belkebir, M., 119  
Białopiotrowicz, T., 57, 63  
Bourne, J. R., 83, 93  
Brucato, A., 73  
  
Chavance, D., 1  
Ching, C. B., B47  
Crumpton, P., 167  
  
de Lasa, H. I., 7  
Delacroix, A., 1  
Dodds, J., 193  
Domenech, S., 119, 153  
  
El Ghezal, L., B25  
El-Sawi, M., 137  
  
Frimpong, S., 25  
Frusteri, F., 137  
  
Galindo, E., B9  
García, I. G., B1  
Giordano, N., 137  
Granger, J., 193  
Guiglion, C., 119  
  
Hemati, M., B25
- Herrera, R., B9  
Hidajat, K., B47  
Houang, P., 175  
  
Infortuna, F. A., 137  
Jańczuk, B., 57, 63  
  
Kolaczkowski, S. T., 167  
  
Laguerie, C., B25  
Landry, P., 1  
Laukhuf, W. L. S., 25  
Lédé, J., 27, 103  
Lee, R. P. J., 167  
Li, H. Z., 37, 103  
Lignola, P. G., 137  
Lii, C.-W., 145  
Lim, H. C., B15  
  
Mahay, A., 7  
Martín, A. M., B1  
McLaughlin, H. S., 187  
Midoux, N., 193  
Modak, J. M., B15  
Muratet, G., 1  
  
Nagase, M., B39  
Narduzzi, F., 1
- Nauman, E. B., 187  
Parmaliana, A., 137  
Pérez, A. C., B1  
Pibouleau, L., 119, 153  
Plank, C. A., 25  
Porte, C., 1  
  
Ravella, A., 7  
Rizzuti, L., 73  
Ruiz, J. M. O., B1  
  
Sakai, K., B39  
Schaegger, M., 175  
Sedahmed, G. H., 17  
Souignac, F., 103  
Spence, A., 167  
  
Tsuda, S., B39  
  
Uddin, M. S., B47  
  
Verma, A. K., 205  
Villermaux, J., 37, 103  
  
Wójcik, W., 57, 63  
  
Yih, S.-M., 145  
Youssef, S., 153  
  
Zoulalian, A., 175



## Subject Index

---

- Absorption**  
simultaneous absorption of nitric oxide and sulphur dioxide in  $\text{Fe}^{II}$ -EDTA solutions in a packed absorber-stripper unit, 145
- Adhesion**  
influence of *n*-alkanes on wetting of coal and adhesion of water and air bubbles to coal surface, 57
- Adsorption**  
adsorption of  $\beta_2$ -microglobulin on PMMA, PAN and cellulosic membranes, B39
- Agitation speeds**  
effects of different impeller combinations and agitation speeds on the culture of a highly oxygen-sensitive bacteria, B9
- Albumin**  
diffusional kinetics of monoclonal antibody, transferrin and bovine serum albumin on Sephadryl S-200 HR gel, B47
- Alkanes**  
correlation between flotation activity of coal, the contact angle and stability of the coal/*n*-alkane film-air bubble-water system, 63  
influence of *n*-alkanes on wetting of coal and adhesion of water and air bubbles to coal surface, 57
- Bacteria**  
effects of different impeller combinations and agitation speeds on the culture of a highly oxygen-sensitive bacteria, B9
- Berl saddles**  
kinetic study of the production of ethanol with *Saccharomyces cerevisiae* immobilized on Berl saddles, B1
- Bovine serum**  
diffusional kinetics of monoclonal antibody, transferrin and bovine serum albumin on Sephadryl S-200 HR gel, B47
- Bubble columns**  
heat transfer mechanism in bubble columns, 205
- Catalysts**  
parameter estimation in the kinetic model of methylcyclohexane dehydrogenation on a Pt-Al<sub>2</sub>O<sub>3</sub> catalyst by sequential experiment design, 137
- Catalytic fixed-bed reactor**  
pseudoadiabatic axial thermal profiles in a catalytic fixed-bed reactor: measurements and modelling, 7
- Cellulosic membranes**  
adsorption of  $\beta_2$ -microglobulin on PMMA, PAN and cellulosic membranes, B39
- Channel interaction**  
channel interaction in a non-adiabatic monolithic reactor, 167
- Coal**  
correlation between flotation activity of coal, the contact angle and stability of the coal/*n*-alkane film-air bubble-water system, 63  
influence of *n*-alkanes on wetting of coal and adhesion of water and air bubbles to coal surface, 57
- Coal surface**  
influence of *n*-alkanes on wetting of coal and adhesion of water and air bubbles to coal surface, 57
- Contact angle**  
correlation between flotation activity of coal, the contact angle and stability of the coal/*n*-alkane film-air bubble-water system, 63
- Continuous flow**  
on gelation continuous flow polycondensation reactors, 187
- Control**  
use of an expert system generator for the control of a chemical process in the development laboratory, 1
- Control variables**  
optimal operation of fed-batch bioreactors with two control variables, B15
- Culture**  
effects of different impeller combinations and agitation speeds on the culture of a highly oxygen-sensitive bacteria, B9
- Cyclone reactor**  
the cyclone reactor. Part I: direct measurement of the residence time distribution of the gaseous phase — scale-up rules, 37  
the cyclone reactor. Part II: direct measurement of the solid phase residence time distribution — scale-up rules, 103
- Dehydrogenation**  
parameter estimation in the kinetic model of methylcyclohexane dehydrogenation on a Pt-Al<sub>2</sub>O<sub>3</sub> catalyst by sequential experiment design, 137
- Derivation**  
simplification of micromixing calculations.  
I. Derivation and application of new model, 83
- Diffusional kinetics**  
diffusional kinetics of monoclonal antibody, transferrin and bovine serum albumin on Sephadryl S-200 HR gel, B47
- Distillation column**  
calculation for a distillation column with multiple feeds and sidestreams, 153
- Ethanol**  
kinetic study of the production of ethanol with *Saccharomyces cerevisiae* immobilized on Berl saddles, B1

- Expert system generator**  
use of an expert system generator for the control of a chemical process in the development laboratory, 1
- Fed-batch bioreactors**  
optimal operation of fed-batch bioreactors with two control variables, B15
- Flotation activity**  
correlation between flotation activity of coal, the contact angle and stability of the coal/*n*-alkane film-air bubble-water system, 63
- Fluidised bed**  
experimental study of the pyrolysis of wood sawdust in a fluidised bed of sand particles between 630 and 940 °C, B25
- Gas generation**  
effect of surface-active agents on the rate of solid-liquid mass transfer with gas generation at the interface, 17
- Gaseous phase**  
the cyclone reactor. Part I: direct measurement of the residence time distribution of the gaseous phase — scale-up rules, 37
- Gelation**  
on gelation continuous flow polycondensation reactors, 187
- Geometry**  
influence of geometry on the residence time distribution and the performance of a non-aerated isothermal lagoon system, 175
- Heat exchanger network**  
synthesis of a heat exchanger network, 119
- Heat transfer**  
heat transfer mechanism in bubble columns, 205
- Impeller combinations**  
effects of different impeller combinations and agitation speeds on the culture of a highly oxygen-sensitive bacteria, B9
- Kinetics**  
parameter estimation in the kinetic model of methylcyclohexane dehydrogenation on a Pt-Al<sub>2</sub>O<sub>3</sub> catalyst by sequential experiment design, 137
- Lagoon system**  
influence of geometry on the residence time distribution and the performance of a non-aerated isothermal lagoon system, 175
- Laminar flow**  
laminar flow in channels with porous walls, 193
- Methylcyclohexane**  
parameter estimation in the kinetic model of methylcyclohexane dehydrogenation on a Pt-Al<sub>2</sub>O<sub>3</sub> catalyst by sequential experiment design, 137
- β<sub>2</sub>-Microglobulin**  
adsorption of β<sub>2</sub>-microglobulin on PMMA, PAN and cellulosic membranes, B39
- Micromixing calculations**  
simplification of micromixing calculations.  
I. Derivation and application of new model, 83  
simplification of micromixing calculations.  
II. New applications, 93
- Monoclonal antibody**  
diffusional kinetics of monoclonal antibody, transferrin and bovine serum albumin on Sephadex S-200 HR gel, B47
- Monolithic reactor**  
channel interaction in a non-adiabatic monolithic reactor, 167
- Multiple feeds**  
calculation for a distillation column with multiple feeds and sidestreams, 153
- Nitric oxide**  
simultaneous absorption of nitric oxide and sulphur dioxide in Fe<sup>II</sup>-EDTA solutions in a packed absorber-stripper unit, 145
- Optimal operation**  
optimal operation of fed-batch bioreactors with two control variables, B15
- Parameter estimation**  
parameter estimation in the kinetic model of methylcyclohexane dehydrogenation on a Pt-Al<sub>2</sub>O<sub>3</sub> catalyst by sequential experiment design, 137
- Poly(methyl methacrylate)**  
adsorption of β<sub>2</sub>-microglobulin on PMMA, PAN and cellulosic membranes, B39
- Polyacrylonitrile**  
adsorption of β<sub>2</sub>-microglobulin on PMMA, PAN and cellulosic membranes, B39
- Polycarbonate**  
evaluation of sorption and transport of sulfur dioxide in polycarbonate, 25
- Polycondensation reactors**  
on gelation continuous flow polycondensation reactors, 187
- Porous walls**  
laminar flow in channels with porous walls, 193
- Pseudoadiabatic axial thermal profiles**  
pseudoadiabatic axial thermal profiles in a catalytic fixed-bed reactor: measurements and modelling, 7
- Pyrolysis**  
experimental study of the pyrolysis of wood sawdust in a fluidised bed of sand particles between 630 and 940 °C, B25
- Residence time distribution**  
influence of geometry on the residence time distribution and the performance of a non-aerated isothermal lagoon system, 175  
the cyclone reactor. Part I: direct measurement of the residence time distribution of the gaseous phase — scale-up rules, 37  
the cyclone reactor. Part II: direct measurement of the solid phase residence time distribution — scale-up rules, 103
- Residence time distributions**  
the twin-system approach to experimental determination of residence time distributions, 73

- Saccharomyces cerevisiae**  
 kinetic study of the production of ethanol with  
*Saccharomyces cerevisiae* immobilized on Berl  
 saddles, B1
- Scale-up rules**  
 the cyclone reactor. Part I: direct measurement  
 of the residence time distribution of the gas-  
 eous phase — scale-up rules, 37  
 the cyclone reactor. Part II: direct measurement of  
 the solid phase residence time distribution —  
 scale-up rules, 103
- Sidestreams**  
 calculation for a distillation column with multiple  
 feeds and sidestreams, 153
- Simplification**  
 simplification of micromixing calculations.  
 I. Derivation and application of new model, 83  
 simplification of micromixing calculations.  
 II. New applications, 93
- Solid phase**  
 the cyclone reactor. Part II: direct measurement  
 of the solid phase residence time distribution —  
 scale-up rules, 103
- Solid-liquid mass transfer**  
 effect of surface-active agents on the rate of  
 solid-liquid mass transfer with gas generation  
 at the interface, 17
- Sorption**  
 evaluation of sorption and transport of sulfur  
 dioxide in polycarbonate, 25
- Stability**  
 correlation between flotation activity of coal,  
 the contact angle and stability of the coal/  
*n*-alkane film-air bubble-water system, 63
- Sulphur dioxide**  
 evaluation of sorption and transport of sulfur  
 dioxide in polycarbonate, 25  
 simultaneous absorption of nitric oxide and  
 sulphur dioxide in Fe<sup>II</sup>-EDTA solutions in a  
 packed absorber-stripper unit, 145
- Surface-active agents**  
 effect of surface-active agents on the rate of  
 solid-liquid mass transfer with gas generation  
 at the interface, 17
- Synthesis**  
 synthesis of a heat exchanger network, 119
- Transferrin**  
 diffusional kinetics of monoclonal antibody,  
 transferrin and bovine serum albumin on  
 sephacryl S-200 HR gel, B47
- Transport**  
 evaluation of sorption and transport of sulfur  
 dioxide in polycarbonate, 25
- Twin-system approach**  
 the twin-system approach to experimental deter-  
 mination of residence time distributions, 73
- Wetting**  
 influence of *n*-alkanes on wetting of coal adhesion  
 of water and air bubbles to coal surface, 57
- Wood sawdust**  
 experimental study of the pyrolysis of wood saw-  
 dust in a fluidised bed of sand particles between  
 630 and 940 °C, B25

